WHAT IS CLAIMED IS:

1. An ice detector for providing a signal indicating ice formation, the ice detector comprising:

a longitudinally extending probe protruding into an airflow; and

a surface roughness feature on a surface of the probe, the surface roughness feature improving ice detection.

2. The ice detector of claim 1, wherein the surface roughness feature provides an ice accreting edge at a distal end of the probe.

3. The ice detector of claim 2, wherein the probe is a substantially cylindrical probe.

4. The ice detector of claim 2, wherein the surface roughness feature comprises a flat probe tip at the distal end of the probe providing the ice accreting edge.

5. The ice detector of claim 2, wherein the surface roughness feature comprises a stepped probe tip at the distal end of the probe providing the ice accreting edge.

6. The ice detector of claim 5, wherein the probe further comprises first and second longitudinally extending probe sections of differing sizes, the stepped probe tip being formed between the first and second longitudinal probe sections.

7. The ice detector of claim 6, wherein the first and second longitudinally extending probe sections have different lengths.

8. The ice detector of claim 6, wherein the first and second longitudinally extending probe sections have different radii.

9. The ice detector of claim 2, wherein the probe comprises a probe main body and a probe extension extending from the distal end of the probe main body, the surface roughness feature comprising the probe extension, and the probe extension providing the ice accreting edge.

10. The ice detector of claim 9, wherein the probe main body has a cylindrical shape with a hemispherical tip, and wherein the probe extension has a cylindrical shape with a flat tip.

11. The ice detector of claim 2, wherein the surface roughness feature comprises ridge member at the distal end of the probe providing the ice accreting edge.

12. The ice detector of claim 11, wherein the ridge member is formed such that it extends substantially parallel to the airflow.

13. The ice detector of claim 11, wherein the ridge member is formed such that it extends substantially orthogonally to the airflow.

14. The ice detector of claim 1, wherein the surface roughness feature is arranged on a side surface of the longitudinally extending probe, the surface roughness feature causing the airflow to increase in turbulence in the vicinity of the probe.

15. The ice detector of claim 14, wherein the surface roughness feature is a protruding surface roughness feature protruding from the side surface of the longitudinally extending probe.

16. The ice detector of claim 14, wherein the surface roughness feature includes a slot formed in the side surface of the longitudinally extending probe.

17. The ice detector of claim 16, wherein the surface roughness feature includes a plurality of slots formed in the side surface of the longitudinally extending probe.

18. The ice detector of claim 14, wherein the surface roughness feature includes a plurality of dimples formed in the side surface of the longitudinally extending probe.

19. The ice detector of claim 14, wherein the surface roughness feature includes a cross-hatch pattern formed in the side surface of the longitudinally extending probe.

20. The ice detector of claim 14, wherein the surface roughness feature includes one or more ridges formed in the side surface of the longitudinally extending probe.

21. The ice detector of claim 14, wherein the surface roughness feature includes one or more apertures formed in the side surface of the longitudinally extending probe.

22. The ice detector of claim 21, and further comprising means for applying suction through the one or more apertures.